## **CLAIMS**

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- 1 1. A method comprising:
- 2 measuring cumulative mesh network viability based upon packet loss
- 3 information calculated from packets transmitted from at least one of a plurality of
- 4 nodes.
- 1 2. The method of claim 1 wherein the wireless network is an ad hoc wireless
- 2 network.
- 1 3. The method of claim 1 further comprising storing the packet loss information
- 2 at the at least one server.
- 1 4. The method of claim 3 wherein said storing the packet loss information
- 2 comprises network protocol processing a received packet upon receipt of the received
- 3 packet at the at least one server.
- 1 5. The method of claim 3 wherein said storing the received packet at the at least
- 2 one server comprises processing the received packet at a time period subsequent to
- 3 the arrival of the received packet at the server.
- 1 6. The method of claim 3 wherein said storing the received packet at the at least
- 2 one server comprises associating an identifier with the received packet prior to
- 3 processing the received packet.

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- 1 7. The method of claim 3 wherein said storing the received packet at the at least
- 2 one server further comprises comparing the packet with a plurality of previously
- 3 received packets to determine whether a duplicate packet had been transmitted.
- 1 8. The method of claim 7 wherein the at least one server discards the received
- 2 packet in response to detecting that the received packet is a duplicate packet that has
- 3 been transmitted.
- 1 9. A wireless network comprising:
- a plurality of nodes configured to at least transmit packets in the wireless
- 3 network;
- at least one server operably configured to calculate packet loss information in
- 5 the wireless network during packet transmission from at least one of the plurality of
- 6 nodes such that overall mesh network viability of the wireless network is measured in
- 7 the wireless network; and
- a store for storing the packet loss information.
- 1 10. The wireless network of claim 9 wherein the store for storing the packet loss
- 2 information is at the at least one server.
- 1 11. The wireless network of claim 9 wherein the store for storing the packet loss
- 2 information is operably configured for access at a future period of time.

- 1 12. The wireless network of claim 9 wherein the store for storing the packet loss
- 2 information is operably configured for processing out-of-order packets.
- 1 13. The wireless network of claim 9 wherein the server discards the packets.
- 1 14. A wireless network comprising:
- a plurality of nodes configured to at least transmit packets in the wireless
- 3 network;
- at least one memory medium, the at least one memory medium having an
- 5 instruction set operably configured to calculate packet loss information in the wireless
- 6 network during packet transmission from at least one of the plurality of nodes in the
- 7 wireless network such that overall mesh network viability of the wireless network is
- 8 measured in the wireless network; and
- a store for storing the packet loss information. .
- 1 15. The wireless network of claim 14 wherein the store for storing the packet loss
- 2 information is at at least one server.
- 1 16 The wireless network of claim 14 wherein the store for storing the packet loss
- 2 information is operably configured for access at a future period of time.
- 1 17. The wireless network of claim 14 wherein the store for storing the packet loss
- 2 information is operably configured for processing out-of-order packets.

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- 1 18. The wireless network of claim 14 wherein the server discards the packets when
- 2 duplicate packets are detected.
- 1 19. A memory medium comprising:
- a set of instructions operably configured to calculate packet loss information in
- 3 a wireless network during packet transmission from at least one of a plurality of nodes
- 4 in the wireless network such that overall mesh network viability of the wireless
- 5 network is measured.
- 1 20. The memory medium of claim 19 wherein the packet loss information is stored
- 2 in a store at at least one server in the wireless network.
- 1 21. The memory medium of claim 19 wherein the packet loss information tracks
- 2 packets regardless of an order that the packets are received at at least one server in
- 3 the wireless network.
- 1 22. An article comprising:
- a storage medium comprising machine-readable instructions stored thereon
- 3 to:
- 4 calculate packet loss information in a wireless network during packet
- 5 transmission from at least one of a plurality of nodes in the wireless network such
- 6 that overall mesh network viability of the wireless network is measured.
- 1 23. The article of claim 22, wherein the wireless network comprises an ad hoc
- 2 wireless network.

- 1 24. The article of claim 22, wherein the storage medium further comprises
- 2 machine-readable instructions stored thereon to:
- 3 store the packet loss information at at least one server for access at a future
- 4 period of time.
- 1 25. The article of claim 24, wherein the storage medium further comprises
- 2 machine-readable instructions stored thereon to:
- 3 process a received packet upon receipt of the received packet at the at least
- 4 one server.
- 1 26. The article of claim 24, wherein the storage medium further comprises
- 2 machine-readable instructions stored thereon to:
- process the received packet at a time period subsequent to the arrival of the
- 4 received packet at the at least one server.
- 1 27. The article of claim 24, wherein the storage medium further comprises
- 2 machine-readable instructions stored thereon to:
- associate an identifier with the received packet prior to processing the received
- 4 packet.
- 1 28. The article of claim 24, wherein the storage medium further comprises
- 2 machine-readable instructions stored thereon to:
- 3 compare the packet with a plurality of previously received packets to determine
- 4 if duplicate packets have been transmitted.

- 1 29. The article of claim 28, wherein the storage medium further comprises
- 2 machine-readable instructions stored thereon to:
- 3 cause the at least one server to discard the received packet in response to
- 4 detecting that the received packet is a duplicate packet that has been transmitted.
- 1 30. A system comprising:
- a plurality of nodes configured to at least transmit packets in a wireless
- 3 network;
- at least one server operably configured to calculate packet loss information in
- 5 the wireless network during packet transmission from at least one of the plurality of
- 6 nodes such that overall mesh network viability of the wireless network is measured in
- 7 the wireless network, the at least one server having an ethernet adapter for wired
- 8 communications; and
- a store for storing the packet loss information.
- 1 31. The method of claim 2 wherein mesh network viability is the cumulative packet
- 2 loss in the ad hoc wireless network.
- 1 32. The method of claim 3 where said storing the packet loss information at the at
- 2 least one server is for access at a future period of time.

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